WE CLAIM:

1. A method of mapping a color in a color image produced by an image device from a presentation color space to a destination color space, the method comprising the steps of:

receiving the color from the image device;

determining whether color is to be preserved;

converting the color from the presentation color space to the destination color space using a default profile if it is determined that color is to be preserved; and

converting the color from the presentation color space to the destination color space using a device-specific profile absent a determination that color is to be preserved.

2. The method of claim 1, wherein the image device is a monitor.

3. The method of claim 1, wherein the presentation color space is RGB color space.

4. The method of claim 1, wherein the destination color space is CIE XYZ color space.

5. The method of claim 1, which further comprises receiving the device-specific profile from the image device.

6. A method of mapping an initial-formatted color produced by an image device in a presentation color space to a destination color space comprising the steps of:

receiving the initial-formatted color from the image device;

converting the initial-formatted color from the presentation color space to the destination color space using a device-specific profile to produce a device-formatted color;

converting the initial-formatted color from the presentation color space to the destination color space using a default profile to produce a default-formatted color; and

producing a resultant color in the destination color space by weighted combination of the device-formatted color with the default-formatted color.

7. The method of claim 6, wherein the image device is a monitor.

8. The method of claim 6, wherein the presentation color space is RGB color space.

9. The method of claim 6, wherein the destination color space is CIE XYZ color space.

10. The method of claim 6, which further comprises receiving the device-specific profile from the image device.

11. The method of claim 6, wherein weighted combination of the device-formatted color with the default-formatted color includes weighting the device-formatted color relative to the default-formatted color.

12. The method of claim 6, wherein weighted combination of the device-formatted color with the default-formatted color involves weighting the device-formatted color and the default-formatted color based on proximity to a to-be-preserved color.

13. The method of claim 12, wherein proximity to the to-be-preserved color is determined based on hue angle of the initial-formatted color.

14. The method of claim 13, wherein the hue angle is related to a weighting factor by a look-up table.

15. The method of claim 13, wherein hue angle is related to a weighting factor by a mathematical function.

16. The method of claim 6, wherein weighted combination of the device-formatted color with the default-formatted color is accomplished in accordance with the equation:

$$c * [X,Y,Z]_{DEVICE} + (1-c) * [X,Y,Z]_{DEFAULT} \Rightarrow [X,Y,Z]_{RESULTANT}$$

wherein c is a weighting factor, and wherein $[X,Y,Z]_{DEVICE}$ is the device-formatted color, wherein $[X,Y,Z]_{DEFAULT}$ is the default-formatted color, and wherein $[X,Y,Z]_{RESULTANT}$ is the resultant color.

17. The method of claim 16, wherein c approaches 0 as the initial-formatted color approaches a to-be-preserved color.

18. The method of claim 16, wherein combination of c and (1-c) produce unity.

19. A storage medium readable by a computer, having embodied therein a program of instructions executable by the computer to perform the steps of:

receiving a color in a presentation color space from an image device;

determining whether color is to be preserved;

converting the color to a destination color space using a default profile if it is determined that color is to be preserved; and

converting the color to the destination color space using a device-specific profile absent a determination that color is to be preserved.

20. The storage medium of claim 19, wherein the image device is a monitor.

21. The storage medium of claim 19, wherein the presentation color space is RGB color space.

22. The storage medium of claim 19, wherein the destination color space is CIE XYZ color space.

23. The storage medium of claim 19, wherein the program of instructions further includes the step of receiving the device-specific profile from the image device.

24. A storage medium readable by a computer, having embodied therein a program of instructions executable by the computer to perform the steps of:

receiving an initial-formatted color in a presentation color space from an image device;

converting the initial-format color from the presentation color space to a destination color space using a device-specific profile to produce a device-formatted color;

converting the initial-formatted color from the presentation color space to the destination color space using a default profile to produce a default-formatted color; and

producing a resultant color in the destination color space by weighted combination of the device-formatted color with the default-formatted color.

25. The storage medium of claim 24, wherein the image device is a monitor.

26. The storage medium of claim 24, wherein the presentation color space is RGB color space.

27. The storage medium of claim 24, wherein the destination color space is CIE XYZ color space.

28. The storage medium of claim 24, wherein the program of instructions further includes the step of receiving the device-specific profile from the image device.

29. The storage medium of claim 24, wherein weighted combination of the device-formatted color with the default-formatted color includes weighting the device-formatted color relative to the default-formatted color.

30. The storage medium of claim 24, wherein weighted combination of the device-formatted color with the default-formatted color involves weighting the device-formatted color and the default-formatted color based on proximity to a to-be-preserved color.

31. The storage medium of claim 30, wherein proximity to the to-be-preserved color is determined based on hue angle of the initial-formatted color.

32. The storage medium of claim 31, wherein the hue angle is related to a weighting factor by a look-up table.

33. The storage medium of claim 31, wherein hue angle is related to a weighting factor by a mathematical function.

34. The storage medium of claim 24, wherein weighted combination of the device-formatted color with the default-formatted color is accomplished in accordance with the equation:

$$c * [X,Y,Z]_{DEVICE} + (1-c) * [X,Y,Z]_{DEFAULT} \Rightarrow [X,Y,Z]_{RESULTANT}$$

wherein c is a weighting factor, and wherein $[X,Y,Z]_{DEVICE}$ is the device-formatted color, wherein $[X,Y,Z]_{DEFAULT}$ is the default-formatted color, and wherein $[X,Y,Z]_{RESULTANT}$ is the resultant color.

35. The storage medium of claim 34, wherein c approaches 0 as the initial-formatted color approaches a to-be-preserved color.

36. The storage medium of claim 34, wherein combination of c and (1-c) produce unity.

37. A method of mapping a source image from a presentation color space to a printing color space comprising the steps of:

receiving the source image, the source image including colors defined in the presentation color space;

converting the source image from the presentation color space to an intermediate color space in accordance with a conversion function which accommodates preservation of one or more colors to produce a color-preserved image;

converting the color-preserved image back from the intermediate color space to the presentation color space to produce a color-preserved image in the presentation color space; and

converting the color-preserved image from the presentation color space to the printing color space.

38. The method of claim 37, wherein the image device is a monitor.

39. The method of claim 37, wherein the presentation color space is RGB color space.

40. The method of claim 37, wherein the intermediate color space is CIE XYZ color space.

41. The method of claim 37, wherein the printing color space is CMYK color space.

42. A storage medium readable by a computer, having embodied therein a program of instructions executable by the computer to perform the steps of:

receiving a source image including colors defined in the presentation color space;

converting the source image from the presentation color space to an intermediate color space in accordance with a conversion function which accommodates preservation of one or more colors to produce a color-preserved image;

converting the color-preserved image back from the intermediate color space to the presentation color space to produce a color-preserved image in the presentation color space; and

converting the color-preserved image from the presentation color space to the printing color space.

43. The storage medium of claim 42 wherein the image device is a monitor.

44. The storage medium of claim 42 wherein the presentation color space is RGB color space.

45. The storage medium of claim 42 wherein the intermediate color space is CIE XYZ color space.

46. The storage medium of claim 42 wherein the printing color space is CMYK color space.

47. A color management system comprising:

an image device configured to present an initial-formatted color image defined in a presentation color space;

a print processor configured to receive the initial-formatted color image from the image device, to convert the initial-formatted color image from the presentation color space to a destination color space using a device-specific profile to produce a device-formatted color image, to convert the initial-formatted color image from the presentation color space to the destination color space using a default profile to produce a default-formatted color image, to produce a resultant color image in the destination color space by weighted combination of the device-formatted color image with the default-formatted color image, to convert the resultant color image from the destination color space to the presentation color space to produce a color-preserved color image in the presentation color space, and to convert the color-preserved color image from the presentation color space to a printing color space; and

a print engine configured to print the color-preserved color image in the printing color space.

48. The system of claim 47, wherein the image device is a monitor.

49. The system of claim 47, wherein the presentation color space is RGB color space.

50. The system of claim 47, wherein the destination color space is CIE XYZ color space.

51. The system of claim 47, which further comprises receiving the device-specific profile from the image device.

52. The system of claim 47, wherein the printing color space is CMYK color space.